

**CLAIMS**

## 1. Aqueous mixture comprising

- 5           A) at least one alkoxylate of the formula (I)  
               $R^1-O-(CH_2-CHR^2-O)_n-CH_2-CH_2-OH$  or its phosphoric ester,  
              wherein  
               $R^1$  is a linear or branched  $C_6-C_{19}$ -alkyl radical,  
               $R^2$  is hydrogen, methyl or ethyl, and  
10             $n$  has an average value of 3 to 11;  
              B) at least one hydroxy carboxylic acid in simple form or as a polyoligo  
              hydroxy carboxylic acid or salts thereof or a polyacrylate or a  
              phosphonate or salts thereof or any mixtures therefrom,  
              C) an aromatic sulphonation or sulphination or sulphation product or salts  
15            thereof,  
              D) an alkaline earth metal salt,  
              and also optionally further additives.

## 20    2. Mixture according to Claim 1 wherein

- $R^1$  is a linear or branched  $C_8-C_{15}$ -alkyl radical,  
               $R^2$  is hydrogen or methyl,  
               $n$  has an average value of 5 to 9;  
              B is citric acid or sodium gluconate or an  $\alpha$ -hydroxy polyacrylate or  
25            ATMP, HEDP, DTPMPA, EDTMPA or PBTC or salts of these  
              phosphonates or any mixture therefrom,  
              C is cumenesulphonic acid or naphthalenesulphonic acid or an alkali  
              metal/ammonium salts thereof, and  
              D is magnesium chloride, magnesium sulphate, calcium chloride or  
30            calcium sulphate.

## 3. Mixture according to Claim 1 or 2 wherein

R<sup>1</sup> is a linear or branched C<sub>12</sub>-C<sub>15</sub>-alkyl radical,

R<sup>2</sup> is hydrogen or methyl,

n has an average value of 6 or 7; and

5 B is citric acid or sodium gluconate or DTPMPA or any mixture therefrom,

C is cumenesulphonic acid or an alkali metal/ammonium salt thereof, and

D is magnesium chloride or magnesium sulphate.

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## 4. Mixture according to Claim 3 wherein

B is a mixture of citric acid and sodium gluconate,

C is sodium cumenesulphonate, and

15 D is magnesium chloride.

## 5. Mixture according to Claim 1 comprising two different alkoxylates of the formula (I),

A1) wherein

20 R<sup>1</sup> is a branched C<sub>6</sub>-C<sub>14</sub>-alkyl radical,

R<sup>2</sup> is hydrogen, methyl or ethyl, and

n has an average value of 3 to 11;

and

A2) wherein

25 R<sup>1</sup> is a linear or branched C<sub>8</sub>-C<sub>19</sub>-alkyl radical,

R<sup>2</sup> is hydrogen, methyl or ethyl, and

n has an average value of 3 to 10,

and wherein B) to D) are defined as mentioned.

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## 6. Mixture according to Claim 5 wherein in

A1)  $R^1$  is a branched  $C_8$ - $C_{12}$ -alkyl radical, $R^2$  is hydrogen or methyl, and $n$  has an average value of 5 to 9;

5

and in

A2)  $R^1$  is a linear or branched  $C_{10}$ - $C_{17}$ -alkyl radical, $R^2$  is hydrogen or methyl, $n$  has an average value of 4 to 8,

and

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B is citric acid or sodium gluconate or an  $\alpha$ -hydroxy polyacrylate or ATMP, HEDP, DTPMPA, EDTMPA or PBTC or salts of these phosphonates or any mixture therefrom,

C is cumenesulphonic acid or naphthalenesulphonic acid or an alkali metal/ammonium salts thereof, and

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D is magnesium chloride, magnesium sulphate, calcium chloride or calcium sulphate.

## 7. Mixture according to Claim 5 or 6 wherein

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A1)  $R^1$  is a branched  $C_{10}$ -alkyl radical, $R^2$  is hydrogen, and $n$  has an average value of 7;

and in

A2)  $R^1$  is a linear or branched  $C_{12}$ - $C_{15}$ -alkyl radical,

25

 $R^2$  is hydrogen, $n$  has an average value of 6,

and

B is citric acid or sodium gluconate or DTPMPA or any mixture therefrom,

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C is cumenesulphonic acid or an alkali metal/ammonium salt thereof, and

D is magnesium chloride or magnesium sulphate.

8. Mixture according to Claim 5 or 6 wherein
- 5           A1) is an alkoxylate of a linear or branched C<sub>10</sub>-alcohol or mixtures thereof having on average 8 ethylene oxide units and 1 propylene oxide unit,
- and
- A2) is an alkoxylate of a linear or branched C<sub>12</sub>-C<sub>15</sub>-alcohol having on average 7 ethylene oxide units,
- and
- 10          B    is a mixture of citric acid and sodium gluconate,
- C    is sodium cumenesulphonate, and
- D    is magnesium chloride.
- 15    9.    Mixture according to Claim 7 wherein
- B    is a mixture of citric acid and sodium gluconate,
- C    is sodium cumenesulphonate, and
- D    is magnesium chloride.
- 20    10.   Mixture according to any one of Claims 1 to 9 wherein said component A or the sum total of A1 and A2 has a concentration of 1% to 40% by weight, said component B has a concentration of 1% to 20% by weight, said components C and D each have a concentration of 0.1% to 10% by weight, based on the entire aqueous mixture.
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11.   Mixture according to any one of Claims 1 to 10 wherein the concentration of component A or of the sum total of A1 and A2 is 7% to 20% by weight, of component B is 2% to 10% by weight and of components C and D is in each case 0.4% to 5% by weight.
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12.   Mixture according to any one of Claims 1 to 11 wherein the concentration of component A or of the sum total of A1 and A2 is 14% to 20% by weight, of component B is 3% to 8% by weight and of components C and D is in each case

0.6% to 2. 5% by weight.

13. Mixture according to any one of Claims 1 to 12 wherein foam-suppressing components and defoamers are used as additional additives.

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14. Use of a mixture according to any one of Claims 1 to 13 to pretreat textiles.

15. Process for pretreating textiles which comprises steps of

- setting a liquor ratio of 5:1 to 20:1, preferably 8:1 to 10:1,
- 10 - heating the treatment bath to 25-60°C, preferably to 30-50°C,
- adding 0.5-8 ml/l, preferably 1-4 ml/l of a mixture in accordance with Claim 1,
- adding 1-20 ml/l, preferably 2-3 ml/l of hydrogen peroxide 50%,
- adding 1-10 ml/l, preferably 1.5-3.5 ml/l of aqueous sodium hydroxide
- 15 solution 50%,
- further heating the treatment bath to 8-130°C, preferably to 95-100°C,
- holding this temperature for 15-90 minutes, preferably for 40-50 minutes,
- cooling and dropping the bath,
- optionally hot rinsing at 50-100°C, preferably at 70-90°C,
- 20 - optionally cold rinsing and dropping the bath.

16. Process for cellulosic or cellulosic-synthetic fibre blend pretreatment comprising steps of

- providing a vessel;
- 25 - providing a cellulosic or cellulosic-synthetic fibre blend substrate;
- providing a water bath;
- adding an aqueous mixture according to Claim 1,
- optionally adding an active amount of an activating compound selected from the group consisting of salts of organic acids, organic amine
- 30 derivatives, transition metal salts or transition metal complexes,
- adding an active amount of caustic soda to obtain a starting bath having an alkaline pH;
- adding an active amount of hydrogen peroxide;

- heating the water bath to a temperature of 80-130°C during a time period;
- optionally cold or warm rinsing,
- optionally adding catalase.

5 17. Process according to Claim 16, wherein

- the aqueous mixture is added in a concentration of 0.5-4 g/l.